

## REMARKS

Reconsideration of the present application is requested.

The presently claimed invention relates to an apparatus or method for determining a demand-supply scheme in which one or each of the demand-supply steps of the scheme is selected based upon data that maximizes the profitability index.

### Independent Claim 1

*sixth means for selecting one of the demand-supply steps by which the commodity is to be manufactured based upon scheme data that maximizes the profitability index. paragraph)*

### Independent Claim 8

*F) selecting one of the plurality of demand-supply schemes as a manufacturing process by which the commodity is to be produced based upon scheme data that maximizes the profitability index calculated, of the scheme data determined using the variable parameter.*

### Independent Claim 17

*fifth means for selecting the variation of each demand-supply step which has a maximum profitability index, based on the order receipt scheme inputted and the stock record inputted, and the third data stored by the first means.*

### Independent Claim 28

*selecting the variation of each demand-supply step which has a maximum profitability index, based on the order receipt scheme inputted and the stock record inputted, and the third data stored by the first means.*

### New Independent Claim 40

*wherein the scheme determining portion selects the combination of demand-supply steps that yield the supply chain distribution scheme having the highest profitability index.*

Those claims, except new claim 40, stand rejected over Lilly et al. in view of Sellers et al. Lilly et al. discloses a method and apparatus for scheduling work orders in a manufacturing process. Nowhere in the description of the Lilly et al. invention is the concept of profitability even mentioned, let alone incorporated as part of a scheduling scheme. Nor are costs even discussed. Applicants do not dispute that companies desire to make a profit. Sellers et al. of record makes that point. However, that fact does not mean that every aspect of a company's operation must be performed in a manner for optimizing profit. If that were the case, Lilly et al. would have at least mentioned profitability as a parameter in determining scheme data. But Lilly et al. never discusses or even hints at profitability as a relevant parameter to be considered in performing any part of the disclosed method or apparatus for scheduling work orders in a manufacturing process. The only parameters which the Lilly et al. considers are those which affect scheduling, not profitability.

*The scheduling system of the present invention assigns resource capacity, a start date/time, and a finish date/time to each operation in the work order being scheduled based upon the resource availability information, the material availability information, and the work order information. The system schedules an operation for a date and time when both the necessary resource capacity is available and the necessary materials are available." (Lilly et al., paragraph bridging columns 6 and 7, emphasis added)*

That fact is important, because it raises serious questions as to how one skilled in the art would incorporate into the method of Lilly et al. the concept of selecting a demand-supply step on the basis of profitability, without destroying the invention of Lilly et al. In other words, if Lilly et al. were to select a demand-supply step based only upon profitability, then the selected step(s) would not be based on

the very considerations that form the basis for the invention in Lilly et al. As pointed out by the Patent Office Board of Appeals:

*Reynolds teaches neither partial nor complete orientation of filaments in the film matrix. More importantly however, Reynolds cannot properly be combined with Graham et al. relative to the employment of continuous filaments, since to do so would destroy that on which the invention of Graham et al. is based, namely, the use of very short fibers. We will not sustain this rejection. (Ex Parte Hartmann, 186 USPQ 366-7 (Bd. App. 1974))*

Present claims 1 and 8 have been amended to make it clear that the selection made by the sixth means of claim 1 and step F of claim 8 is made on the basis of the scheme data which maximizes the profitability index, and each of claims 17 and 18 recites that each selected demand supply step has a maximum profitability index. Lilly et al. could not do that while adhering to the concept actually disclosed in Lilly et al. involving the making of a selection based upon non-profitability criteria. Note this invention concept as defined in claim 1 of Lilly et al.:

*assigning resource capacity and a start date/time and a finish date/time to each operation based upon the resource availability, the material availability, and the work order information, by selecting a start date/time for each operation based upon a determination that both the resource capacity and the material required for that operation are concurrently available on such start/date time, to provide a schedule (emphasis added).*

To alter the method of Lilly et al. to cause profitability to be the only criteria for selecting a demand supply step on the basis of patentability would completely alter the nature of the invention of Lilly et al. and prevent Lilly et al. from achieving the expressly intended goal of

*determining the best fit of the operations of each work order in the schedule based upon both resource availability and material availability. (Lilly et al., column 2, lines 42-44)*

Due to the incompatibility of the express teachings of Lilly et al. (non-profitability) and Sellers et al. (profitability), it is not seen how it could be deemed obvious to combine those teachings, or even how they could be combined. Sellers et al. provides no instructions how to combine those teachings in a way that would leave intact the inventive concept of Lilly et al. How exactly would they be combined?

If the method of Lilly et al. were to rely only on profitability, then the criteria relating to scheduling would become secondary, which is clearly not the intention in Lilly et al. and would be resisted by Lilly et al. Nor is it clear that Sellers et al. teaches that each demand supply step in a supply chain should have maximum profitability as recited in claims 17, 28 and 40.

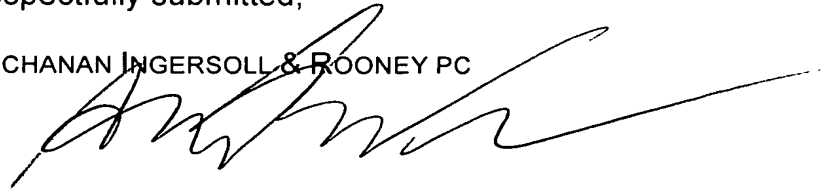
Accordingly, it is submitted that all of the independent claims distinguish patentably over the prior art.

Claim 1 has been amended to overcome the indefiniteness noted in section no. 6 of the Official action. It is not seen that claims 8, 17 and 28 possess the objectionable language.

In light of the foregoing, it is submitted that the application is in condition for allowance.

Respectfully submitted,

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